United States Department of Agriculture **Forest Service** **Midewin National Tallgrass Prairie** **30071 South State Route 53 Wilmington, IL 60481**

File Code: 1950/5430

Date: March 12, 2001

To Interested and Concerned Citizens:

The 30-day public comment period for the Continued Agricultural Land Use from 2001 through 2005 Environmental Assessment has passed, and I have made my final decision. I want to thank those who took the time to comment throughout the planning process for this project.

Enclosed you will find the Decision Notice which explains my decision to implement Alternative 1, and Appendix A - Response to Public Comments received during the Environmental Assessment comment period. The Environmental Assessment, the public comments received, and the project planning record are on file at our office. We hope that you will continue to be involved with further planning for Midewin National Tallgrass Prairie.

Sincerely yours,

FRANK KOENIG
Prairie Supervisor

Enclosures:

Decision Notice/Finding of No Significant Impact
Appendix A, Response to Public Comments

Decision Notice
and
Finding of No Significant Impact
for
Continued Agricultural Land Use from 2001 through 2005

USDA Forest Service
Midewin National Tallgrass Prairie
Will County, Illinois

Introduction

This project fulfills the need to manage grassland bird habitat and to maintain large tracts of land in a weed-free condition, until seed resources are available for prairie restoration and a Final Midewin National Tallgrass Prairie (MNTP) Land and Resource Management Plan (Plan) is implemented. Although a Final Plan has not been completed, the MNTP enabling legislation (Illinois Land Conservation Act of 1995) states that the Forest Service is to "allow the continuation of agricultural land uses within the MNTP…". Further, the Forest Service may conduct management activities at MNTP prior to completion of the Plan. Agriculture and grazing are interim projects listed in the "Notice of Intent to Prepare an Environmental Impact Statement for the Land and Resource Management Plan, 1998" as needing to be implemented pending compliance with the following criteria:

1. The Forest Service must determine that the environmental conditions of the site where the activity may occur meet the standards necessary for the activity.
2. The activity does not interfere with Army cleanup operations as directed in the legislation (2913 [e][1]).
3. The activity does not represent an irretrievable commitment of resources (i.e., a project can be "undone" with relative ease and minimal finances) unless it is necessary for safety or resource protection purposes.
4. The activity represents a valid, existing right as provided by the legislation (e.g., agriculture) (Section 2915[b]).

Decision

After consideration of the environmental effects displayed in the Environmental Assessment for Continued Agricultural Land Use from 2001 through 2005, I have decided to implement Alternative 1. Specifically, I have decided to continue to plant no-till row crops (genetically-modified, glyphosate-resistant soybeans) that minimize soil erosion. These will be rotated with small grains (non-modified wheat and oats) in certain fields that have been used for row crop agriculture. Glyphosate will continue to be applied to the soybeans, but not to the small grain crops. Fields in the small grain portion of the rotation will be mowed in late summer (after harvest) to control certain noxious weeds, if needed. Our goal is to gradually convert cropland into grassland habitat and

restored native vegetation. The maximum amount of acreage in row crops/small grains will be 4,140 acres in 2001. The acreage in row crops/small grains will decline by up to 2,300 acres by the end of the 2005, leaving approximately 1,840 acres in production.

Livestock grazing and hay cutting will be used to maintain existing and newly established grassland habitat. Some additional mowing may be required to control invading shrubs or noxious weeds. Mowing and hay cutting will be conducted outside the nesting season for grassland birds. If any mowing is required to control small infestations of weeds during the grassland bird nesting season, the infestation will be inspected on foot to locate and avoid any active nests. Duration and intensity of grazing will vary with management requirements. This action also includes developing three new wells, maintaining or relocating existing fences, and constructing new fences for effective use of livestock as a management tool. As stated above, up to 2,300 acres of row crops/small grain fields will be converted to grassland wildlife habitat or restored prairie between 2001 and 2005, depending on funding. The location and amount of prairie and grassland habitat restoration will depend on the funding and allocations in the upcoming Midewin Plan. These areas will be managed with prescribed burning, mowing, grazing, or hay cutting, depending on the habitat management objectives.

Inventories will be completed in accordance with the National Historic Preservation Act. Recorded heritage resource sites that are found to be potentially eligible for inclusion on the National Register of Historic Places will be avoided during all project-related activities.

Rationale for the Decision

In making this decision I considered the direction and intent of the 1995 Illinois Land Conservation Act, whereby the Forest Service may conduct management activities prior to a land and resource management plan to promote the purposes for which the MNTP was established, including the continuation of agricultural land uses and managing the land and water resources to conserve and enhance the native populations and habitats of fish, wildlife, and plants.

Alternative 1 best meets the project objective (EA page 5) of employing agricultural land use practices (cropping and grazing) to comply with MNTP enabling legislation, to maintain lands in a weed-free state until restoration can be undertaken, and to protect/enhance habitat for sensitive plant and animal species. It also meets the secondary objective to accomplish these land management objectives in a cost-effective manner.

We have grazed cattle and have cultivated land for crops over the last five years at Midewin. The effects of continued grazing and cultivation of soybeans with glyphosate are similar to effects observed in the past. The use of glyphosate-resistant soybeans and glyphosate provides better weed control. Continued use of this cropping system would significantly minimize the amount of annual weed seed in the upper portion of the soil and reduce the amount of invasive plant control efforts required during subsequent grassland establishment or prairie restoration, effectively maintaining portions of the

MNTP in a relatively weed-free state (EA p 37). Past experience shows that cattle grazing on grasslands is an effective tool to manage grassland bird habitat. Placement of fences to prevent cattle from entering streams and wetlands will protect these resources, and installing three wells will provide adequate water for livestock.

Alternative 1 will benefit the following sensitive grassland bird species present at MNTP: Northern Harrier, Upland Sandpiper, Short-eared Owl, Migrant Loggerhead Shrike, Bobolink, and Henslow's Sparrow (EA p 33-35). Alternative 1 will generate maximum revenue in year 2001 of about $300 per acre. This is higher than other project alternatives, with the exception of Alternative 2 (EA p 46). A portion of these revenues will be distributed to the state of Illinois and subsequently to Will County for use on county roads and schools. The remainder of revenue collected from special use or grazing permits will be used to fund restoration activities at Midewin.

Alternative 1 will have no adverse environmental effects on sensitive plant and animal populations found at MNTP (EA p 45). Alternative 1 includes monitoring of populations of Sullivant's Coneflower under a variety of degrees of exposure to grazing and other management practices. It continues to monitor conditions in the various grasslands of the MNTP to determine if management objectives are being met. Alternative 1 monitors sensitive bird species populations. It also monitors the use of herbicides to determine proper implementation and compliance with the MNTP Spill Safety Plan. Lastly, all agricultural special use permit holders that use fertilizers to maintain or improve soil fertility are be required to base application requests on soil testing and soil fertility mapping (EA p 43).

Alternative 1 complies with the four criteria the Forest Service implements for "interim projects" cited in the Introduction on page 1 of this decision:

1. We have met the standards for environmental conditions in the past. Stream and riparian areas will be protected by keeping cows out. A key example is that cows are now kept out of streams and riparian areas.
2. We coordinate with Army cleanup operations and this project will not interfere with their activities.
3. This project could be "undone" with relative ease and minimal finances and does not represent an irretrievable commitment of resources.
4. Agriculture land use represents a valid existing use as provided by the legislation for Midewin.

Other Alternatives That Were Considered

Alternative 2 (Conventional Soybean/Corn Cropping Followed by Small Grains)

I did not selected, although it would generate maximum revenues (about $350 per acre) in excess of those generated by alternative 1. Alternative 2 was not chosen, in large part, because it would likely include the use of atrazine, a "Restricted Use Pesticide" with the potential to contaminate groundwater, whereas Alternative 1 would use glyphosate, a "General Use Pesticide" with low potential to contaminate groundwater (EA p 43). In

addition, soil erosion in crop fields would be "low" under Alternative 1 and "moderate" under Alternative 2 (EA p 44).

Alternative 3 (Continuous Small Grain Cropping)
I did not select this alternative, in large part because farmers may generate maximum revenues of only about $125 per acre (EA p 41). These limited revenues may keep farmers from cropping MNTP lands and require the Forest Service to assume management of these croplands. In addition, the small grain crops would be less effective in controlling weeds than would Alternatives 1 or 2 (EA p 37).

Alternative 4 (No Action Alternative)
I did not select this alternative as it does not allow for the continuation of agricultural practices, as described in the MNTP enabling legislation (PL-104-106), nor does it manage habitats for suites of bird species dependent on short and medium stature grasslands. These lands would not be managed until such time that they were restored in accordance with the Midewin LRMP and would be dominated by herbaceous weeds, shrubs, and young trees. It would be costly and difficult to implement restoration on lands infested with weeds. Lastly, this alternative would eliminate new revenues from agricultural special use permits requiring the Forest Service to expend additional funds for restoration management activities (EA p 42).

Alternative 5 (Restoration Management Activities)
I did not select this alternative for reasons similar to Alternative 4. It also fails to manage grassland bird habitat. While weed infestation and seedbank contamination would be somewhat less than under Alternative 4, invasive plant populations are likely to be much more problematic than those encountered in Alternatives 1, 2, or 3 (EA p 38).

Public Involvement
Public involvement in this decision first began with a scoping notice October 10, 2000 sent to approximately 600 people and organizations. On January 25, 2001, a letter requesting comments on the Environmental Assessment (EA) was sent to approximately 600 interested parties. The EA was made available to the public. Copies of the EA were mailed to approximately 80 individuals and organizations. In addition to the public involvement opportunities cited in the EA, information on the proposal was published in the Midewin Quarterly, October-December, 2000.

Mitigation Features
The Environmental Assessment page 14, describes several mitigation measures that will be implemented as part of this decision. We have effectively used these mitigation measures in years past to reduce or eliminate adverse effects on different resources. We anticipate continued effectiveness in the future for the mitigation measures listed below:

- Implement soil and water conservation practices that prevent erosion and preserve soil fertility.

- Basing fertilizer application on soil testing and soil fertility mapping.

- Avoid and protect heritage resources that are found to be eligible for inclusion on the National Register of Historic Places during project implementation.

- Restore and expand breeding habitat for sensitive grassland bird species not benefited by grazing or haying, such as Henslow's Sparrow, Northern Harrier, and Short-eared Owl.

- Protect wetlands in pastures or hayfields in order to provide nesting habitat for the Northern Harrier, Short-eared Owl, and other bird species.

Finding of No Significant Impact

Based on the interdisciplinary environmental analysis, review of the National Environmental Policy Act (NEPA) criteria for significant effects, and knowledge of the expected impacts, I have determined that this action does not pose a significant effect upon the quality of the human environment and is not a major federal action. Therefore, an Environmental Impact Statement is not indicated for the continued use of agriculture land from 2001 through 2005.. This determination is based on the following factors:

Context:

Alternative 1 is within the context (here a local action) of the 1995 Illinois Land Conservation Act which allows continuation of agricultural land uses at Midewin National Tallgrass Prairie.

Intensity:

The severity of the environmental effects of the proposed continued agricultural land uses considered alone or cumulatively with others effects, and were tested against the following ten criteria listed in the NEPA regulations, 40 CFR 1508.27:

1. In reaching my conclusion of no significant impacts, I recognize that this continued agricultural land use project may have some impact on the land. However, there are no significant effects either individually or cumulatively. The negative effects are limited to the potential for impacts to individual plants of the Sullivant's coneflower being damaged. These individuals could be subject to some grazing, trampling or mowing. Most of their foliage is fairly low (less than 6 inches), and this species appears to benefit from having taller competitors removed by mowing or grazing.

2. This action does not pose a substantial question of significant effect upon public health and safety. The areas where individuals have raised concerns about public health and safety involve the use of herbicides, which be limited to glyophosate, an approved herbicide.

3. There are no significant adverse effects to prime farmlands, floodplains, wetlands, wild and scenic rivers, wilderness, or ecologically sensitive areas. At Midewin there

are no Wilderness areas, and no Wild and Scenic rivers. This project does not impact ecologically sensitive areas. Wetlands and floodplains are protected through mitigation measures and are not affected. Continued land use for crops or pasture land has no affect on lands classified as prime farmland.

4. The effects on the quality of the human environment are not expected to be highly controversial. I believe we have addressed the most significant biological, social, and economical issues sufficiently to avoid scientific controversy over the scope and intensity of effects. Based upon reports and discussions with professional resource specialists there is no debate about the conclusions or effects identified in this analysis.

5. There are no known effects on the human environment that are highly uncertain or involve unique or unknown risks. Glyphosate-resistant soybeans do not hybridize with the local flora, nor are they known to harm the local fauna. The likelihood of this genetically-modified soybean crossing with conventional, genetically unmodified soybeans on adjacent land is extremely low (EA pp. 42).

6. No precedents are established as a result of the decision being made. The continued agricultural land use project is specific to the Midewin National Tallgrass Prairie. Future proposals within the area or in surrounding areas can be analyzed on their merits and implemented or not, independent of the action currently proposed.

7. There are no known cumulative adverse effects of continued agricultural land uses and other past or reasonably foreseeable projects implemented or planned within the project area. This finding is based on our experience with agriculture land use at Midewin over the past four years.

8. This project area has been extensively disturbed and used for agriculture in the past. Heritage resource specialists have inventoried the area, reviewed and compiled information and have determined that heritage resources will not be impacted. Conducting survey of individual project areas, such as well development sites, would determine any potential impacts to previously undiscovered heritage resources.

9. The Biological Assessment and evaluation prepared for this project, which is available to the public at our office, found that there would be no adverse effects to federally endangered or threatened species within the proposed site.

10. The actions in this decision do not violate federal, state or local laws or regulations imposed for the protection of the environment.

Findings Required By Other Laws

Continued agricultural land use from 2001 through 2005 is consistent with the Illinois Land Conservation Act, 1995, the National Historic Preservation Act, and the Endangered Species Act.

Project Implementation
Implementation of this decision may occur on, but not before, five business days from the close of the appeal filing period. If an appeal is filed, implementation may not occur for 15 days following the date of appeal disposition (36 CFR 215.10). Implementation means conducting ground-disturbing actions described in this decision.

Appeal Rights
This decision is subject to the USDA Forest Service process for administrative review pursuant to 36 CFR 215.7, by those who provided comments or otherwise expressed an interest in this particular proposal. Written notice of appeal to remand or reverse this decision must be fully consistent with 36 CFR 215.14 "Content of Appeal," and must be submitted within 45 days of publication of the legal notice of this decision in the Joliet Herald newspaper to:

USDA Forest Service, Eastern Region (R9)
Attn: Appeals Deciding Officer
310 West Wisconsin Ave, Suite 500
Milwaukee, WI 53203

Detailed records of the Environmental Assessment are available for public review at USDA Forest Service, Midewin National Tallgrass Prairie, 30071 S. State Route 53, Wilmington, IL 60481. For additional information concerning this decision or the Forest Service appeal process, contact Renée Thakali, Prairie Parklands Coordinator at the Midewin office or at (815) 423-6370.

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Frank Koenig, Prairie Supervisor Date

Appendix A

Agency Responses to Public Comments
Continued Agricultural Land Use from 2001 through 2005 EA

Below are agency responses to the public comments received during the Environmental Assessment comment period, January 25 to February 26, 2001. Letters received are available for review at the Midewin National Tallgrass Prairie (MNTP) office.

Comment Letter 1 (e-mail from Meghan and Deb Favaro, dated February 13, 2001):

Comment 1A: *What land uses will occur at MNTP after 2004?*

Forest Service Response to Comment 1A:
To fulfill the four legislated purposes for Midewin, the land uses will include continued agriculture, however restoration of native prairie and grassland bird habitat will be the primary focus. Some lands will be developed for recreational use. The forthcoming proposed Land and Resource Management Plan will detail six alternatives containing different allocations for these land uses.

Comment Letter 2 (letter from Kent Austin, dated February 15, 2001):
Comment 2A:
The habitat examination for this project does not follow FSM 2634 direction, consequently, the analysis of alternatives is inadequate. In addition, the BE for this project was not reviewed or conducted by a journey level or higher biologist (FSM 2634).

Forest Service Response to Comment 2A:
Minimum requirements in Forest Service Manual direction 2634.1 for habitat examinations and wildlife resource prescriptions include using the most current information available and information from field examinations to 1) determine existing and projected wildlife management indicator species, 2) whether the project complies with standards and guidelines for the maintenance of viable populations, 3) describe treatments to provide desired species mixes and habitat to achieve wildlife objectives, 4) determine and describe project modifications to reduce potential negative effects, and 5) propose monitoring needed to determine if wildlife and other resource objectives are being met.

The purpose of the project is to provide habitat for grassland bird species (EA pp. 3). Given the project scope, the entire project analysis relates to habitat examination in one way or another. Of particular relevance, the biological resources are addressed in the EA Section on Sensitive Plant and Animal Populations (EA pp. 30).

The Biological Evaluation (BE) further addresses federally listed species and their habitats. Information on federally listed and proposed species was obtained from the Fish

and Wildlife Service as background data for the preparation of the BE. It was determined that no federally listed species occur within the area.

The BE also addresses Special Status Species and their habitats. It was determined that the selected alternative would increase habitat for Special Status Species and maintain population viability (EA pp. 32-36).

The BE for this project was conducted by Dr. Peter Ames (a Senior Environmental Scientist at Harza Engineering Company under contract to prepare the EA and BE). The BE was reviewed and approved by Eric Ulaszek, Forest Service GS-437-11 Horticultural Specialist. Mr. Ulaszek fulfills the requirement of a journey-level Forest Service biologist.

Comment 2B:
FSM 2623 requires an economic analysis, which for this project would probably be just an evaluation of economic efficiency between alternatives. However, it appears none was conducted.

Forest Service Response to Comment 2B:
The EA section on Socio-economics (EA pp. 39-42) describes the maximum revenue per acre that a special use permittee or the Forest Service would be expected to earn (or spend) under each alternative. We believe that this is an adequate evaluation of economic efficiency between alternatives

Comment 2C:
The section on Socio-economics is weak in that the dollar figures do not explain these are just estimates of government revenues for one person. The figures quoted do not take into account the cost of various treatments or the cost of the wells. A proper economic analysis would have documented all the assumptions and enabled the public to see all the costs involved between the various alternatives.

Forest Service Response to Comment 2C:
Dollar figures presented in the Socio-economics section (pp. 39-42) of the EA represent the maximum revenue per acre (in 2001 dollars) that a permittee (Alternatives 1, 2, or 3) or the Forest Service (Alternatives 4 or 5) would be expected to earn or spend under each alternative. These estimates were made by Dr. Randy Ziegenhorn, an agricultural consultant and operator of a 1,200-acre corn and soybean farm in New Boston, Illinois. We believe that Mr. Ziegenhorn is well qualified to make such estimates.

Dollar figures presented in the Socio-economics section of the EA do not include the cost of developing several wells, maintaining or relocating existing fences, and constructing new fencing. These activities would be required under Alternatives 1, 2, or 3, as described in the EA. No costs were included for these activities due to the uncertain nature of quantities, locations, materials, and responsible parties that existed at the time of EA preparation. It has been determined that three new wells will be required. While

the costs for well development and other activities would slightly decrease the economic benefits associated with Alternatives 1, 2, or 3, the relationship among alternatives would remain unchanged.

Comment 2D:
The section on Aquatic Ecology and Water Quality is quite intensive, however there is no analysis or even a mention to the possible effects to the groundwater that may result from the wells. Based on the 1 February 2001 map received from you, there are 12 existing wells and 3 new wells that will be involved with this proposal. There is no indication as to how much these well will produce and what effect that will have on the groundwater. Without some documented analysis, how will the public know whether or not these withdrawals might result in the expansion of contaminants from the Army areas.

Forest Service Response to Comment 2D:
The three proposed wells, in conjunction with the 12 existing wells, are not expected to have any effect on groundwater quantity or quality. They will produce no more than 1,000 gallons per day. In addition, the locations for the three proposed wells are a considerable distance from identified groundwater management zones. Existing wells located closer to groundwater management zones have not resulted in expansion of contaminants. Therefore, withdrawals are expected to result in the expansion of contaminants from the Army groundwater management zones.

Comment 2E:
Failure to use the HSI models developed specifically for Midewin does not provide the deciding official with all the information needed to make an informed decision. If, as you stated in your response to me, these models have not been field verified, how do you intend to justify their use in monitoring?

Forest Service Response to Comment 2E:
As summarized in the response to the issue on sensitive plant and animal populations, wildlife habitat considerations have been addressed throughout the EA.

Direction for Special Status Species and Management Indicators Species will be developed as part of the MNTP Land and Resource Management Plan, and will be incorporated into the project at that time.

Monitoring plans for the project related to sensitive species are outlined in the BE (pp. 6, 25). Please refer to the BE for information on these plans.

The habitat parameters of the Habitat Suitability Indices were developed largely at Midewin (and have been field verified by Forest Service staff). These include litter depth, grass height, unfragmented area size and others. We will be monitoring these parameters.

Comment Letter 3 (letter from Claire M. Wilson, dated February 16, 2001):
Comment 3A:
Request for equestrian trails to be written into special use permits.

Forest Service Response to Comment 3A:
As described in the EA (p. 14), interim recreation trails and components of a permanent trail system would likely be developed prior to 2005. Grazing areas would require special gates/turnstiles to allow access, yet keep livestock contained.

Interim recreation trails may be incorporated into areas used for grazing under agriculture special use permits. Interim recreation trails also may be developed in other areas not affected by agricultural special uses. It is expected that any interim equestrian trails would be located on existing road infrastructure. Many factors including visitor safety and security, will need to be sufficiently addressed before trails are opened for public use throughout Midewin. We will be considering interim trails in safe areas (basically outside of the security fence) throughout the next year, and your involvement throughout the trail planning process is welcome.

The permanent recreation trail system, which may include equestrian use trails, will be described in the Final Midewin Land and Resource Management Plan (Plan). The draft Midewin Plan will be published in the spring of 2001 and made available for pubic review and comment.

Comment 3B:
Conversion of vast acreages of MNTP to grasslands of short/moderate length by livestock grazing could be in contradiction to the concept of a "tallgrass" prairie.

Forest Service Response to Comment 3B:
Despite the name of "Midewin National Tallgrass Prairie", the site will be restored to a mosaic of prairie landscapes including tallgrass, medium and short stature grasses. Both restored native prairie forbs and grasses and pastures of introduced cool season grasses will be restored. Historical records indicate that extensive native prairie was dominated by a mix of shorter forbs and prairie grasses such as prairie dropseed and little bluestem. As described in the EA (p. 5), grazing is identified as an important interim project in the "*Notice of Intent to Prepare an Environmental Impact Statement for the Land and Resource Management Plan (1998)*". Continued agriculture will be used to maintain the lands in a weed-free state until tallgrass prairie restoration can be undertaken. Grazing by cattle will maintain habitat for sensitive grassland birds. As shown in the EA (Table 1, p. 11), the acreage of crops will decrease and the acres of livestock grazing will increase between 2001 and 2005. Some tallgrass prairie restoration also will take place between 2001 and 2005. Further information will be provided in the draft Midewin LRMP, which will be published in the spring of 2001 and made available for public review and comment. We believe this interim project will be consistent with the goals and objectives, as well as standards and guidelines of the forthcoming Plan.

Comment 3C:
The more farmers can till and cultivate row crops, the less chemicals need to be used. No analysis or comparison of these two propositions are addressed in the EA. None of the alternatives analyzed the possibility of tilling with low level or no chemical application.

Forest Service Response to Comment 3C:
Turning straw under does play a role in killing disease organisms that over-winter in crop residue. However, herbicides and pesticides are still typically employed in tillage systems. While herbicides are also typically used in no-till systems, proper application methods and timing can minimize the amounts required. Crop rotation is beneficial under both systems.

Crops cultivated with tillage can also be cultivated with a no-till system. Under no-till systems soil-incorporated herbicides are not used and the soil is more effectively managed. This results in an improved ability of the soil to produce a crop. As described in the *Zero Tillage Production Manual* (Coutts, G.R. and R.K. Smith, 1991, Manitoba North Dakota Zero Tillage Farmers Association) no-till systems have seven advantages over tillage systems:

1. consistent residue cover means no crop loss due to wind or water erosion.
2. improved soil moisture conditions create a firm, moist seedbed.
3. more suited to shallow seeding
4. more friable.
5. better traffic-surface residue means seed, spray, and harvest operations can be implemented with less soil compaction.
6. greater biological activity and more organic matter.
7. cooler soils.

For the reasons stated above, Alternatives 1, 2, and 3 incorporated no-till systems.

Comment 3D:
It would not be helpful to any interest to allow the areas in question to go "fallow" as suggested in Alternatives 4 (No Action) or 5 (Restoration Management Activities). It might be possible to use a combination of alternatives 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains), 2 (Conventional Soybean/Corn Cropping Followed by Small Grains), and 3 (Continuous Small Grain Cropping), and it seems sensible and practicable to try to eliminate the proliferation of non-native or undesirable plant growth through continued agricultural use until sufficient seed is available to allow the conversion to native plants. It may be necessary to use some combination of these alternatives to keep permittees interested in farming at Midewin.

Forest Service Response to Comment 3D:
We believe that Alternative 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains) would have more benefits and fewer adverse effects than the other project alternatives. We believe that permittees will be interested in farming at Midewin if Alternative 1 is implemented, as the Alternative 1 cropping plan is similar to that successfully employed by permittees in 2000. Alternative 1 also provides better conditions for converting to and establishing permanent grass cover.

Comment Letter 4 (letter from Donald R. Nugent, date unknown):
Comment 4A:
Farming is absolutely necessary at the present time at MNTP. Alternative 4 would be a disaster. Alternative 5 (Restoration Management Activities) would be better than Alternative 4 (No Action). However, crops (Alternatives 1, 2, or 3) would be better than Alternative 5 for wildlife and aesthetic reasons. In addition, Alternative 5 would take a giant financial benefit and turn it into a giant financial drain.

Forest Service Response to Comment 4A:
Your comment has been considered.

Comment 4B:
Alternative 3 (Continuous Small Grain Cropping) is not economically feasible. Virtually no market for oats exists in the area. Wheat is not a good crop at MNTP, because it is planted in the fall. In many years freezing, thawing, and/or ice storms would destroy the crop. Typically farmers would simply tear up the wheat in the spring and plant corn. If they are not given this option, few farmers, if any, would bid on agricultural use permits, unless the price was very low.

Forest Service Response to Comment 4B:
We have considered your comment.

Comment 4C:
While Alternative 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains) and Alternative 2 (Conventional Soybean/Corn Cropping Followed by Small Grains) are viable, there are numerous problems with Alternative 1. First, most of MNTP has had two consecutive years of soybeans on it now. Planting a third year would be a terrible drain on the soil and would result in a subpar crop. Waiting until fall to plant wheat would bring three problems: 1) the tracts would grow up in weeds this summer, 2) the USFS would lose a whole year's revenue, since the wheat crop would not be ready until 2002.

Forest Service Response to Comment 4C:
We have seen a slight decline in the second year of soybean production. However, subsequent crops have produced approximately the same levels of harvest. Some tracts at Midewin were in soybean production last year, and others for the past two or three years.

Comment 4D:
Alternative 2 (Conventional Soybean/Corn Cropping Followed by Small Grains) is absolutely the best course of action. It would bring in the maximum revenue for local farmers, farm businesses, and the USFS. It would provide maximum food and cover for animals. It would be environmentally safe. All weeds and brush problems would be eliminated.

Forest Service Response to Comment 4D:
While we believe that Alternative 2 would maximize revenues, provide food and cover for animals, be environmentally safe, and minimize weed problems, we feel that Alternative 1 would have similar benefits and fewer adverse environmental effects. A comparison of these effects is contained in the EA.

Comment 4E:
The existing USFS policy of leasing the MNTP cropland as one or two parcels is appropriate. Such a policy minimizes potential security problems.

Forest Service Response to Comment 4E:
Thank your for your comment.

Comment Letter 5 (letter from Clare Kron, dated February 19, 2001)
Comment 5A:
Alternative 3 (Continuous Small Grain Cropping) is the most ecologically appropriate alternative that concurs with the enabling legislation.

Forest Service Response to Comment 5A:
We agree that Alternative 3 (Continuous Small Grain Cropping) would have fewer adverse environmental effects than would the other alternatives (1 or 2) that comply with the enabling legislation. Conversely, it would provide much less cropland revenue than would Alternatives 1 or 2. Revenues may be low enough to keep potential permittees from offering bids for agricultural special use permits on the MNTP. In this case the Forest Service would likely be forced to let the land lie fallow for at least one year. An extensive weed seedbank would develop if the land lies fallow for even one season. Development of such a weed seedbank would make future cropping difficult, even under alternative cropping plans.

Comment 5B:
Regarding Alternative 2 (Conventional Soybean/Corn Cropping Followed by Small Grains), atrazine has a very restrictive application method (due to the possibility of groundwater contamination) and is no longer in general use. Since pesticides are expensive, farmers are typically frugal in their use. However, the rotation of corn to soybeans (a two-crop rotation, as opposed to earlier farming methods that used four or more crops in rotation to break up the insect cycle) provides for easy insect adaptation. Insecticides would most likely be used to ensure crop production. Watershed contamination may occur as the result of insecticide use.

Forest Service Response to Comment 5B:
While atrazine use is declining, it is still widely used throughout the Midwest. Insecticide use varies by region, but corn and soybeans are still widely grown in rotation without soil applied or foliar insecticides (per recommendation of the University of Illinois Cooperative Extension Service). Periodic outbreaks of insects do occur, especially in late season. These outbreaks can require insecticide applications, which are usually done aerially. As no aerial applications will be allowed at MNTP, the outbreak would go untreated or we would have to find alternative treatments.

Comment 5C:
The planting of corn in Alternative 2 (Conventional Soybean/Corn Cropping Followed by Small Grains) would create massive a massive problem with stalk removal, requiring heavy machinery or extensive volunteer work, and the resulting disturbance of the soil.

Forest Service Response to Comment 5C:
Following harvest of the final corn crop and several years prior to establishing cool season grasses or tallgrass prairie, Alternative 2 would allow seeding of areas with small grains. In addition to eliminating nitrogen and herbicides from the soil, this would eliminate any potential need to remove corn stalks.

Comment 5D:
Alternative 3 (Continuous Small Grain Cropping) would be less effective in deterring the establishment of invasive plants than Alternatives 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains) or 2 (Conventional Soybean/Corn Cropping Followed by Small Grains). However, when prairie restoration begins, a strong micorrhizal population will already be established due to the presence of some opportunistic plants. Over time, the elimination of these opportunistic plants will not be difficult.

Forest Service Response to Comment 5D:
As described in the EA (p. 27), we agree that Alternative 3 would be less effective in deterring the establishment of invasive plants than Alternatives 1 or 2.

Comment 5E:
According to the Illinois Land Conservation Act of 1995 (MNTP enabling legislation), a primary purpose of MNTP is to allow continuation of agricultural uses over the next 20 years. This purpose does not include experimentation, which is the current stage of use of genetically modified organisms (contained in Alternative 1-Glyphosate-Resistant Soybeans Rotated with Small Grains). Therefore, use of glyphosate-resistant soybeans is contrary to the enabling legislation. Use of glyphosate-resistant soybeans at MNTP in year 2000 does not validate the practice as "normal agriculture", nor does the fact that 60 percent of all soybeans planted in Will County are of this type.

Also, the EA states that there is a very low likelihood of glyphosate-resistant soybeans crossing with conventional, unmodified soybeans. This leaves open the possibility of such a crossing. An additional problem is the crossbreeding of different varieties within the realm of genetically modified crops. There has now been an incident of crossbreeding involving multiple genetically modified varieties of canola that indicates severe consequences for the future of a restored prairie. A Canadian government appointed study revealed the creation of genetically modified "superweeds" that cannot be killed by most pesticides.

Finally, it cannot be stated that Alternative 1 will have no cumulative effect, since there has been insufficient time since the introduction of genetically modified crops to perform long-range studies.

Forest Service Response to Comment 5E:
We do not agree with Ms. Kron's belief that glyphosate-resistant soybeans are "experimental". These beans were approved for commercial use in 1996. As described in the EA (page 42), these beans are not known to hybridize with the local flora, nor are they known to harm the local fauna. While the likelihood of these beans crossing with conventional beans is very low, Ms. Kron is correct in stating that such a crossing could possibly take place. To our knowledge, however, such a crossing has never been documented. We believe the cited example concerning crossbreeding of multiple genetically modified varieties of canola in Canada is not relevant. Canola is an open pollinated crop that easily crosses with wild relatives. As we do not find glyphosate-resistant soybeans to be "experimental", we do not believe that their use is contrary to the enabling legislation.

We state in the EA (page 42) that all soybeans grown at MNTP and 60 percent of soybeans grown in Will County during 2000 were glyphosate-resistant. This was not done to justify the cultivation of glyphosate-resistant soybeans as "normal". Instead, it demonstrates that cultivation took place without adverse effects being identified. It also places the potential effect, however slight, caused by beans grown at MNTP in its proper perspective.

No known cumulative effects have been identified for glyphosate-resistant soybeans.

We continue to believe that the proven beneficial effects of glyphosate-resistant soybeans outweigh the potential adverse effects.

If new scientific information or results from monitoring show significant effects that are contrary to effects portrayed in the EA, we will consider modifying the action based on new information. The Forest Service retains the right to modify or terminate special use permits as needed.

Comment 5F:
Alternative 3 (Continuous Small Grain Cropping) will result in substantial reduction of revenue from permit holders, relative to Alternative 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains) or Alternative 2 (Conventional Soybean/Corn Cropping Followed by Small Grains). The enabling MNTP enabling legislation does not require that particular income be generated for permit holders, roads, schools, or prairie restoration purposes. Whereas these benefits may be desirable, the primary concern must be what prepares the land for restoration, as well as protecting the surrounding environment.

Forest Service Response to Comment 5F:
As described in the EA (page 5), the main objectives for the continuation of agricultural land uses at MNTP are to employ agricultural land use practices (cropping and grazing) to comply with MNTP enabling legislation, to maintain lands in a weed-free state until restoration can be undertaken, and to protect/enhance habitat for sensitive plant and animal species. A secondary objective is to accomplish land management objectives in a cost-effective manner.

Alternative 3 would provide much less cropland revenue than would Alternatives 1 or 2. Revenues may be low enough to keep potential permittees from farming lands of the MNTP, contrary to the identified primary objective. In this case the Forest Service would likely be forced to let the land lie fallow for at least one year. An extensive weed seedbank would develop if the land lies fallow for even one season. Development of such a weed seedbank would make future cropping difficult, even under alternative cropping plans.

Comment Letter 6 (letter from Jean SmilingCoyote) dated February 22, 2001)
Comment 6A:
Alternative 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains) is acceptable, but one little "tweak" would be good: In some of the soybean areas have Native American farmers grow the "Three Sisters" (i.e., maize, beans, and squash) in the traditional local manner. If MNTP puts the word out among local organizations, people will step forward and do this work. Such work should be done in appropriate locations and only to such an extent that people are available.

Forest Service Response to Comment 6A:
We have not received any proposals nor has anyone expressed serious interest in farming in such a manner at Midewin. If a feasible proposal was brought forward that met the purpose and need, it would be given due consideration.

Comment Letter 7 (letter from U.S. Environmental Protection Agency, Region 5, dated February 26, 2001
Comment 7A:
Although the EA gives a general description of how each of the listed herbicides and pesticides could affect nearby water resources, it does not provide the amounts of pesticide and herbicide to be used in each case, and it does not quantitatively estimate the impacts from the use of each substance on water quality and other nearby desirable plants. Such information is necessary to compare the environmental impacts of each reasonable alternative.

Forest Service Response to Comment 7A:
As described in the EA (p. 27) no herbicides or pesticides would be used prior to prairie restoration under Alternatives 3 (Continuous Cropping of Small Grains), 4 (No Action), or 5 (Restoration Management Activities). The amounts of herbicides and pesticides used under Alternatives 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains) or 2 (Conventional Soybean/Corn Cropping Followed by Small Grains) would be applied at rate of 1.5 pints/10 gallons or 0.75 pounds of Active Ingredient/acre. This rate was approved by a Forest Service certified applicator last year and was found to be effective. The herbicide would be applied by a ground sprayer. Qualitative estimates clearly indicate that that the chemicals employed in Alternative 1 have less effect than those in Alternative 2.

Comment 7B:
The EA should consider the secondary impacts from herbicide use, specifically glyphosate tolerance in rigid ryegrass.

Forest Service Response to Comment 7B:
Area farmers commonly cultivate glyphosate resistant soybeans and spray with glyphosate. This is an approved use of this pesticide. Resistance to herbicides, pesticides, biological control agents, and antibiotics is a consequence of wide-spread use. The case that you describe is glyphosate-resistance in rigid ryegrass (*Lolium rigidum*), which is a major weed of southern Australia, known for its development of herbicide resistant strains. (Powles, S.B., et. al. 1998. Weed Science. 46:604-607). While this particular case (the world's first confirmed case of glyphosate resistance) opens up the possibility that glyphosate resistance may yet take place in other weed species, rigid rye grass does not occur in Illinois. Monitoring after herbicide application should note if any weeds display this glyphosate resistant character.

Comment 7C:
The USFS should consult with the State Historic Preservation Office about historic and cultural resources within the project area, in order to adequately account for such resources.

Forest Service Response to Comment 7C:
The Forest Service has consulted with the State Historic Preservation Office about historic and cultural resources within the project area. Heritage resources have been adequately addressed in the EA (pp. 28-29) and compliance with the National Historic Preservation Act has been met.

Comment 7D:
The USFS should consult with the US Fish and Wildlife Service in order to fully account for the federally-listed threatened and endangered species in the project area.

Forest Service Response to Comment 7D:
We consulted with the US Fish and Wildlife Service and they agree that no federally listed species would be adversely affected by this project.

Comment Letter 8 (letter from Robert E. Ahlf, dated February 26, 2001)
Comment 8A:
Alternative 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains) should be implemented.

Forest Service Response to Comment 8A:
Thank you for your comment.

Comment Letter 9 (letter from the Midewin Tallgrass Prairie Alliance)
Comment 9A:
The Alliance does not support Alternative 4 (No Action) or 5 (Restoration Management Activities) because they do not meet the objectives of the MNTP enabling legislation.

The Alliance does not support Alternative 3 (Continuous Small Grain Cropping), because it would require application of a nitrogen source if the small grains are not rotated with a legume, such as soybean. Application of a nitrogen source to the soil can result in excessive weed growth with the grain, creating a large weed seed band and significant weed problems when restoring prairie. Also, Alternative 3 may be unacceptable to those currently farming the land.

The Alliance does not support Alternative 2 (Conventional Soybean/Corn Cropping Followed by Small Grains). It would require the use of herbicides that are more toxic or persist longer in soil than glyphosate (which is used in Alternative 1, Glyphosate-

Resistant Soybeans Rotated with Small Grains), and it would result in more soil erosion than Alternative 1.

The Alliance's Executive Committee voted to support Alternative 1, with one opposing vote.

Forest Service Response to Comment 9A:
We have taken your comments into consideration.

Comment Letter 10 (letter from National Audubon Society of the Chicago Region, dated February 26, 2001).
Comment 10A:
We support Alternative 1 (Glyphosate-Resistant Soybeans Rotated with Small Grains).

Forest Service Response to Comment 10A:
Thank you for your comment.

Comment Letter 11 (letter from Mr. John R. Swanson, dated February 23, 2001).
Comment 11A:
I favor planning to restore this area to a tallgrass prairie and oppose any farming or agricultural activities.

Forest Service Response to Comment 11A:
Agriculture land use for grazing will preserve and enhance habitat for grassland birds. As described in the EA (for instance, page 38), one of the primary purposes of the MNTP (as described in the enabling legislation, Illinois Land Conservation Act f 1995) is to allow continuation of agricultural uses over the next 20 years. The continuation of agricultural uses through 2004 and probably thereafter will preserve the land in a weed-free condition until seed resources are available for prairie restoration. Midewin will be restored to a mix of native prairie and cool season grasses to provide habitat for a number of sensitive species.